

What is claimed is:

1. A plated material comprising a metal substrate, a metal plating layer formed on the surface of the substrate, and a soft region spreading in a network-shape and a hard region  
5 surrounded by the network of the soft region coexisting in the metal plating layer, wherein the soft region has a Vickers hardness of 20 to 250, the hard region has a Vickers hardness of 60 to 700, which is at least 30 higher than that of the soft region, and an average size of the network of the soft region is from 5 to 500  $\mu\text{m}$ .
- 10 2. The plated material according to claim 1, wherein the surface of the soft region is located at the position which is 0.2 to 10  $\mu\text{m}$  higher than that of the surface of the hard region.
3. The plated material according to claim 1, wherein the metal plating layer is formed of  
15 Sn or a Sn alloy.
4. The plated material according to claim 1, wherein the substrate is formed of a copper alloy consisting essentially by mass percent of 0.3 to 2% Mg, 0.001 to 0.02% P, 0.0001 to 0.0013% C, 0.0002 to 0.002% O, and the balance of Cu and inevitable impurities.  
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5. The plated material according to claim 1, wherein the substrate is formed of a copper alloy consisting essentially by mass percent of 0.5 to 3% Ni, 0.1 to 0.9% Sn, 0.08 to 0.8% Si, 0.1 to 3% Zn, 0.007 to 0.25% Fe, 0.001 to 0.2% P, 0.001 to 0.2% Mg, 0.0001 to 0.005% C, and the balance of Cu and inevitable impurities.

6. A terminal member for connector, at least a portion of which is formed of the plated material of claim 1.

7. A connector comprising a terminal member, at least a portion of which is formed of  
5 the plated material of claim 1.

8. A method of manufacturing a plated material, comprising the steps of:

making the deposition condition of plating material on the surface of the metal substrate non-uniform;

10       subjecting the surface of the substrate to metal plating to form a metal plating layer; and

subjecting the substrate, on which the metal plating layer was formed, to a reflow treatment by heating to the temperature higher than a melting point of the metal plating;

      wherein the reflow treatment enables a soft region spreading in a network-shape  
15   and a hard region surrounded by the network of the soft region to coexist in the metal plating layer, while controlling so that the soft region has a Vickers hardness of 20 to 250, the hard region has a Vickers hardness of 60 to 700, which is at least 30 higher than that of the soft region, and an average size of the network of the soft region is from 5 to 500  $\mu\text{m}$ .

20   9. The method of manufacturing a plated material according to claim 8, wherein an alloying element is segregated at the grain boundary of the substrate in the step of making the deposition condition of plating material non-uniform.

10. The method of manufacturing a plated material according to claim 8, wherein an  
25   oxide is formed at the grain boundary of the substrate in the step of making the deposition

condition of plating material non-uniform.

11. The method of manufacturing a plated material according to claim 8, wherein the surface of the substrate is provided with unevenness by etching the surface of the substrate  
5 in the step of making the deposition condition of plating material non-uniform.

12. The method of manufacturing a plated material according to claim 8, wherein the surface of the substrate is provided with unevenness by subjecting the surface of the substrate to roll working using a roll with unevenness in the step of making the deposition  
10 condition of plating material non-uniform.